

The present invention relates to a coextruded plastic tube which consists essentially of an inner portion formed from a highly lubricous polymeric material and an outer portion formed from a high tensile strength polymeric material.

Shaw teaches a composite pipe which is specifically designed for handling destructive materials under pressure and vacuum conditions. The pipe has a tubular liner formed from, for example, extruded Teflon which following extrusion is wrapped with a strip of glass fiber fabric. A heating process is then employed which effects a permanent mechanical bond between the liner and the fabric. A layer of fiberglass and resin is then applied to the outer surface of the tube. Thus, Shaw specifically teaches a pipe which is formed from a liner, a fiber fabric which includes at least three distinct layers of material: the Teflon, the fiber fabric, and the fiberglass and resin layer. However, the present invention as now more specifically recited in applicant's claims 11 and 19 consists essentially of an inner cylindrical portion of highly lubricous polymeric material and an outer cylindrical portion of high tensile strength polymeric material. As the fiber fabric is an essential part of Shaw's invention, and is necessary to achieve the objects of Shaw, it is respectfully submitted that Shaw does not teach or suggest a coextruded plastic tube satisfying the limitations of applicant's independent claims 11 and 19 nor would the ordinary

artisan find the invention obvious in view of Shaw who teaches it is critical to include each of the components of his structure. It is therefore respectfully submitted that the invention as recited in claims 11 and 19 is not anticipated by nor obvious in view of Shaw.

Claims 15 and 16 were rejected under 35 U.S.C. 103 as being unpatentable over Shaw as applied to claim 11 and further in view of Redding et al. Further, claims 17 and 18 were rejected under 35 U.S.C. 103 as being unpatentable over Shaw as applied to claim 11 and further in view of Kleykamp. The Examiner takes the position that the secondary references respectfully teach the provision of ribs and corrugations to provide structural strength. And it would therefore be obvious to modify the primary reference to include such ribs or undulations to enhance the structural integrity of a tube. Applicant earnestly traverse this rejection.

At the outset, it is respectfully submitted that claims 15-18 are allowable over Shaw taken alone or in combination with the secondary references as none of the references teach or suggest a tube consisting essentially of the inner and outer portions recited in applicant's independent claims. The Examiner's combination of the secondary references does not overcome this deficiency, furthermore, it is respectfully submitted that it is improper under 35 U.S.C. 103 to combine Shaw

with the secondary references as suggested by the Examiner in order to satisfy the limitations of applicant's claims. Indeed, as noted in re Wright (copy attached) the question is whether what the inventor did would have been obvious to one of ordinary skill in the art attempting to solve the problem upon which the inventor was working. In this case, as noted throughout the specification, the provision of ribs or undulations in accordance with the present invention is to further reduce friction between the coextruded tube of the invention and cables or rods disposed therewithin and between the coextruded tube of the invention and conduits through which it is passed. Contrary to the problem of friction between cables, tubes, and conduits addressed by the invention, Shaw is concerned solely with containing destructive materials and makes no mention of the use of fluoropolymers or other materials in his multiwalled configuration for friction control as is the object of the present invention.

Further, Shaw is not concerned with the structural integrity of his tube as the fiber fabric and fiberglass materials employed by him will clearly alleviate any fears of insufficient structural integrity. Therefore, the ordinary artisan would see no reason to modify Shaw in view of the secondary references.

Even further, the secondary references to Redding and Kleykamp do not teach or suggest the provision of ribs or

undulations for minimizing friction between a prelubricated innerduct and rods and conduits.

Therefore, it is respectfully submitted that none of the references relied upon by the Examiner teaches or suggests that it would have been obvious to one of ordinary skill in the art in attempting to solve the problem of friction between conduits to provide the ribs or undulations in the structure of Shaw who is not even addressing the problem of lubricity.

As is apparent from the foregoing, the ordinary artisan in seeking to solve the problem of friction between innerducts, conduits, and cables would not have looked to the references to Shaw, Redding, or Kleykamp and be taught that it would be advantageous or desirable to provide the structure recited in applicant's independent or dependent claims. Furthermore, the ordinary artisan simply concerned with improving the structure to Shaw would not look to the secondary references as he would not be taught by any of the references that there is a deficiency in Shaw or that such deficiency could or should be overcome by providing ribs or undulations.

Finally, even if such an unlikely combination could be made, the present invention as recited in applicant's independent and dependent claims which consists essentially of the inner and outer portions would still not be anticipated nor obvious and, therefore, even if such a combination would be possible, the


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present invention would still not be anticipated or obvious.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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